

## ABSTRACT OF THE DISCLOSURE

Damage to a capacitive membrane ultrasound transducer is prevented. High voltage protection circuitry is connected with the CMUT. The high voltage protection circuitry is integrated into the CMUT or is provided as external circuitry in the transducer or on the imaging systems. Providing high voltage protection circuitry with a CMUT avoids breakdown voltages associated with the CMUT. Since the high voltage protection circuitry is being used with a CMUT, the high voltage protection circuitry works with a preamplifier adjacent to the membranes for impedance purposes. In one embodiment, the high voltage protection circuitry connects between the membrane and the preamplifier, but may connect elsewhere along the transmit and receive path.